

**Amendments to the Specification:**

Please replace the paragraph beginning on page 5, line 17, with the following amended paragraph:

**Figures 4A-D** show graphs of antibody binding to ~~VV $\beta$ 3~~  $\alpha$ V $\beta$ 3 where this ligand was preincubated in doubling dilutions starting at 10 :g/mL with 50 mM EDTA in 1% BSA-HBSS (in the absence of Ca++) or with 1% BSA-HBSS (with Ca++) for 30 min, 37°C. Mixtures added to plates coated with CNTO 95, C372, c7E3 or LM609 IgG and incubated for 1 hour, 37°C. LM609 or CNTO 95 added at 20 :g/mL in appropriate buffer (+/- Ca++) for 30 min, 37°C. Plates probed with goat anti-mouse IgG Fc, HRP or goat anti-human IgG Fc, HRP.

Please replace the paragraph beginning on page 5, line 23, with the following amended paragraph:

**Figures 4E-G** show graphs of antibody binding to a ~~VV $\beta$ 5~~  $\alpha$ V $\beta$ 5, where this ligand was preincubated in doubling dilutions starting at 10 :g/mL with 50 mM EDTA in 1% BSA-HBSS (in the absence of Ca++) or with 1% BSA-HBSS (with Ca++) for 30 min, 37°C. Mixtures added to plates coated with CNTO 95, C372, c7E3 IgG and incubated for 1 hour, 37°C. VNR139 was added at 10 :g/mL in appropriate buffer (+/- Ca++) for 30 min, 37°C. Plates probed with goat anti-mouse IgG Fc, HRP.

Please replace the paragraph beginning at page 14, line 19 with the following amended paragraph:

Methods for engineering or humanizing non-human or human antibodies can also be used and are well known in the art. Generally, a humanized or engineered antibody has one or more amino acid residues from a source which is non-human, e.g., but not limited to mouse, rat, rabbit, non-human primate or other mammal. These human amino acid residues are often referred to as "import" residues, which are typically taken from an "import" variable, constant or other domain of a known human sequence. Known human Ig sequences are disclosed, e.g., in a number of public databases such as the NCBI database of the National Institute of Health or publications such as [www.ncbi.nlm.nih.gov/entrez/query.fcgi](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi); [www.atcc.org/phage/hdb.html](http://www.atcc.org/phage/hdb.html); [www.seiquest.com/](http://www.seiquest.com/); [www.abcam.com/](http://www.abcam.com/); [www.antibodyresource.com/onlinecomp.html](http://www.antibodyresource.com/onlinecomp.html); [www.public.iastate.edu/~pedro/research\\_tools.html](http://www.public.iastate.edu/~pedro/research_tools.html); [www.mgen.uni-heidelberg.de/SD/TT/TT.html](http://www.mgen.uni-heidelberg.de/SD/TT/TT.html); [www.whfreeman.com/immunology/CH05/kuby05.htm](http://www.whfreeman.com/immunology/CH05/kuby05.htm);

[www.library.thinkquest.org/12429/Immune/Antibody.html](http://www.library.thinkquest.org/12429/Immune/Antibody.html);  
[www.hhmi.org/grants/lectures/1996/vlab/](http://www.hhmi.org/grants/lectures/1996/vlab/); [www.path.cam.ac.uk/~mre7/mikeimages.html](http://www.path.cam.ac.uk/~mre7/mikeimages.html);  
[www.antibodyresource.com/](http://www.antibodyresource.com/);  
[meb.harvard.edu/BioLinks/Immunology.html](http://meb.harvard.edu/BioLinks/Immunology.html) [www.immunologylink.com/](http://www.immunologylink.com/);  
[pathbox.wustl.edu/~hcenter/index.html](http://pathbox.wustl.edu/~hcenter/index.html); [www.biotech.ufl.edu/~hel/](http://www.biotech.ufl.edu/~hel/);  
[www.pebio.com/pa/340913/340913.html](http://www.pebio.com/pa/340913/340913.html); [www.nal.usda.gov/awic/pubs/antibody/](http://www.nal.usda.gov/awic/pubs/antibody/);  
[www.m.chime-u.ac.jp/~yasuhito/Elisa.html](http://www.m.chime-u.ac.jp/~yasuhito/Elisa.html); [www.biodesign.com/table.asp](http://www.biodesign.com/table.asp);  
[www.ionet.uk/axp/faes/davies/links.html](http://www.ionet.uk/axp/faes/davies/links.html); [www.biotech.ufl.edu/~fecl/protocol.html](http://www.biotech.ufl.edu/~fecl/protocol.html);  
[www.isac-net.org/sites\\_geo.html](http://www.isac-net.org/sites_geo.html); [axim1.imt.uni-marburg.de/~rek/AEPStart.html](http://axim1.imt.uni-marburg.de/~rek/AEPStart.html);  
[baserv.uci.kun.nl/~jraats/links1.html](http://baserv.uci.kun.nl/~jraats/links1.html); [www.recab.uni-hd.de/immuno.bmo.nwu.edu/](http://www.recab.uni-hd.de/immuno.bmo.nwu.edu/);  
[www.mre-epc.cam.ac.uk/imt-dee/public/INTRO.html](http://www.mre-epc.cam.ac.uk/imt-dee/public/INTRO.html); [www.ibt.unam.mx/vir/V\\_mice.html](http://www.ibt.unam.mx/vir/V_mice.html);  
[imgt.cnuse.fr/8104/](http://imgt.cnuse.fr/8104/); [www.biochem.ucl.ac.uk/~martin/abs/index.html](http://www.biochem.ucl.ac.uk/~martin/abs/index.html); [antibody.bath.ac.uk/](http://antibody.bath.ac.uk/);  
[abgen-evm.tamu.edu/lab/wwwabgen.html](http://abgen-evm.tamu.edu/lab/wwwabgen.html);  
[www.unizh.ch/~honegger/AHOseminar/Slide01.html](http://www.unizh.ch/~honegger/AHOseminar/Slide01.html); [www.cryst.bbk.ac.uk/~ubeg07s/](http://www.cryst.bbk.ac.uk/~ubeg07s/);  
[www.nimr.mre.ac.uk/CC/ccaewg/ccaewg.htm](http://www.nimr.mre.ac.uk/CC/ccaewg/ccaewg.htm);  
[www.path.cam.ac.uk/~mre7/humanisation/TAHHP.html](http://www.path.cam.ac.uk/~mre7/humanisation/TAHHP.html);  
[www.ibt.unam.mx/vir/structure/stat\\_aim.html](http://www.ibt.unam.mx/vir/structure/stat_aim.html); [www.biosci.missouri.edu/smithgp/index.html](http://www.biosci.missouri.edu/smithgp/index.html);  
[www.cryst.bioe.cam.ac.uk/~fmolina/Web\\_pages/Pept/spottech.html](http://www.cryst.bioe.cam.ac.uk/~fmolina/Web_pages/Pept/spottech.html);  
[www.jerini.de/fr\\_products.htm](http://www.jerini.de/fr_products.htm); [www.patents.ibm.com/ibm.html](http://www.patents.ibm.com/ibm.html); Kabat et al., Sequences of  
 Proteins of Immunological Interest, U.S. Dept. Health (1983), each entirely incorporated  
 herein by reference.

Please replace the paragraph beginning at page 19, line 15, with the following amended paragraph:

In another aspect, the invention provides isolated nucleic acid molecules encoding a(n) anti-dual integrin antibody having an amino acid sequence as encoded by the nucleic acid contained in the plasmid deposited as designated clone C371A. names

\_\_\_\_\_ and ATCC Deposit Nos.  
 \_\_\_\_\_, respectively, deposited on  
 \_\_\_\_\_

Please replace the paragraph beginning at page 67, line 4 with the following amended paragraph:

**Determination of  $\text{Ca}^{++}$  Dependence for Binding of anti-Human ~~VV33/VV35~~  $\alpha\text{V}\beta 3/\alpha\text{V}\beta 5$  Mabs to Their Ligands**

It is known that the presence of the cation calcium is necessary for the Mab c7E3 to bind ~~VV33~~  $\alpha\text{V}\beta 3$  and is not a requirement for binding of Mab LM609 to  $\alpha\text{V}\beta 3$  as demonstrated in Figures 4c and 4d respectively. This experiment was conducted to assess whether calcium dependence also applies to the binding characteristics of CNTO 95 or C372 for ~~VV33~~  $\alpha\text{V}\beta 3$  or ~~VV35~~  $\alpha\text{V}\beta 5$  integrins. An excess concentration of EDTA was introduced into the assay format to chelate the Ca present within the binding pocket of the integrin heterodimers and therefore, binding was assessed in the absence of the cation. It was found that CNTO 95 and C372 binding to ~~VV33~~  $\alpha\text{V}\beta 3$  is not dependent upon the presence of Ca (Figure 4a, 4b). The same is true for CNTO 95 binding to ~~VV35~~  $\alpha\text{V}\beta 5$  but not so, however, for C372 binding to ~~VV35~~  $\alpha\text{V}\beta 5$  (Figure 4e, 4f) as binding appears to be increased in the presence of Ca.